

# Nupur Kulkarni

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## EDUCATION:

**Syracuse University, Syracuse, NY**

**May 2018**

Master of Science, Computer Engineering (Software Track)

Current GPA: 3.8

**Cummins College of Engineering, Pune, India**

**May 2014**

Bachelor of Engineering, Computer Engineering

Grades: First Class with Distinction

## TECHNICAL SKILLS:

**Languages:** C++11, C++14, Java, Python, C#

**Programming Skills:** Multithreading, NLTK, WCF, Web Development using MEAN, WAMP, and LAMP

**Tools:** Git, Selenium Java web driver, Rally, HP QC, Visual Studio (2015,2017), eclipse, Jenkins, Android Studio

**Databases:** MySQL, SQL Server, Firebase

## RELEVANT COURSEWORK:

Design and Analysis of Algorithms, Knowledge Discovery and Data Mining in Big Data, Natural Language Processing, Design Patterns, Distributed Objects, Object Oriented Design, Software Modelling and Analysis

## INDUSTRY EXPERIENCE:

**Research Intern, M.I.N.D. Labs, S.I Newhouse School, Syracuse University, New York**

**June 2017 – Present**

- Developed and maintained code in **Python** to preprocess **cognitive and physiological data** collected using devices like **fNIRS** and **BIOPAC** for training a **machine learning model** used to detect user's mental state
- Currently working on web-based application that aids in predictive cross modelling of neurological and physiological datasets using **Python, Flask, NumPy, Pandas**

**Assistant System Engineer, Tata Consultancy Services, Mumbai, India**

**Sept 2014 – June 2016**

- Worked on Cisco Commerce Workspace, an e-commerce website using **agile** model of software development
- Developed test automation suit to save manual testing efforts using **Selenium WebDriver, testNG, Java and Maven** with continuous integration and source code management tools such as **Jenkins and Apache SVN**
- Collaborated with other developers, QA teams and clients for gaining maximum test coverage

## PERSONAL PROJECTS:

**Dependency-based Remote Code Publisher (C++11)** [GitHub](#)

- Programmed **multithreaded client server C++** source code management application which allows versioning, remote access, publishing and dependency detection of source code files
- Published the files in HTML format as web pages with embedded child links to its dependencies
- Provided the facility to expand or collapse class bodies and methods using JavaScript and CSS properties

**NoSQL Database (C++11)**

- **Devised a NoSQL in-memory key value database** with querying
- Implemented in-memory database backup feature using persistent **XML** files
- Developed unit and integration test suit using **Google Test framework**

**Cross Platform Parallel Text Search (C++11)**

- Instituted text search application for searching a file or set of files exactly matching search pattern or containing part of search pattern on both **Windows** and **Linux** file systems by defining **Microsoft COM technology** for the Windows-based program and **Shared Objects** in Linux

**Cross Platform Tiny HTTP Client and Server (C++11)**

- Created tiny HTTP server running on both **Windows** and **Linux** supporting multiple clients using **socket communication channel** trading **HTTP messages**
- Developed cross platform GUI using **QT framework**

**Code Parser with Abstract Syntax Tree (Python)** [GitHub](#)

- Built a source code analyzer for extracting lexical content from source code files to detect file dependencies
- Parser performed tokenizing, analyzing the code's syntax from its lexical content and building Abstract Syntax Tree that holds the results of analysis

**Remote Build Server (C#, WPF, WCF)** [GitHub](#)

- Constructed Remote Build Server for automating build process on code revision which processes build requests from multiple clients concurrently using **C# threads** and supports **spawning of processes** for reducing request response time
- Application built using **client server architecture** and was responsible for generating the log report for each request
- Engineered **thread safe communication channel** for message passing between different project components using Windows Communication Foundation (**WCF**) and GUI using Windows Presentation Foundation (**WPF**)

**University Database (PLSQL)** [GitHub](#)

- Designed a database schema for storing university related data and implemented it using Microsoft SQL Server